IN THE CLAIMS

Pending claims 1-8 are listed as follows:

1. (Original) A transient overvoltage protection circuit, comprising:

    a. a normally-off bidirectional transistor having a first output terminal coupled to a first signal branch of a balanced circuit, a second output terminal coupled to a second signal branch of the balanced circuit, and a control terminal connected to a reference voltage;

wherein a balanced overvoltage transient signal present on the first and second signal branches of the balanced circuit causes said bidirectional transistor to become conductive and to shunt the balanced transient from said first output terminal to said second output terminal.

2. (Original) The transient overvoltage protection circuit of claim 1, further comprising:

    a. a balun transformer, having a pair of input terminals capable of receiving an unbalanced transient signal and a pair of output terminals connected to the first and second signal branches of the balanced circuit,

wherein said balun transformer converts an unbalanced overvoltage transient signal appearing at its input terminals to a balanced overvoltage transient signal appearing at its output terminals.

3. (Original) The circuit according to claim 1 or 2 wherein said bidirectional transistor is one of a MESFET, MOSFET, JFET, or HFET.

4 (Original) The circuit according to claim 1 or 2 wherein said bidirectional transistor is one of a BJT or an HBT.

5. (Original) The circuit according to claims 1 or 2, additionally comprising:

a. a resistor inserted between said control terminal and said reference voltage.

6. (Original) The circuit according to claims 1 or 2, additionally comprising:

a. a first bias impedance coupled between said first output terminal of said bidirectional transistor and a first bias voltage source; and

b. a second bias impedance coupled between said second output terminal of said bidirectional transistor and a second bias voltage source;

c. a first capacitor coupled between said first output terminal of said bidirectional transistor and one of the pair of said balun output terminals; and

d. a second capacitor coupled between said second output terminal of said bidirectional transistor and the other of the pair of said balun output terminals.

7. (Original) A method for protecting a circuit against overvoltage transients, comprising the step of:

a. coupling a balanced transient signal to a first output terminal and a second output terminal of a bidirectional transistor which has a control terminal coupled to a reference voltage;

wherein said balanced transient signal causes said bidirectional transistor to become conductive and to shunt said balanced overvoltage transient signal from said first output terminal to said second output terminal of said bidirectional transistor.

8. (Original) The method of claim 7, further comprising the step of first converting an unbalanced overvoltage transient signal to a balanced transient signal.